

January 19, 2009

Project Reference #5972

Mr. Tom Hvizdak, Hydrogeologist  
Wisconsin Department of Natural Resources  
Wisconsin Rapids Service Center  
473 Griffith Avenue  
Wisconsin Rapids, WI 54494

RE: 2008 Summary Report  
Castle Rock Elementary School  
1517 CTH H, Adams, Wisconsin  
WDNR BRRTS #03-01-001207

**RECEIVED**

JAN 21 2009

**GRS DIVISION**

Dear Mr. Hvizdak:

Sigma Environmental Services Inc., on behalf of Adams-Friendship Area Schools has prepared this Summary Report to provide the Wisconsin Department of Natural Resources with the additional data generated in 2008 for the Castle Rock Elementary School, 1517 CTH H, Adams, Wisconsin site.

#### **BACKGROUND**

On June 17, 2005, Sigma provided the WDNR with a Case Status Update/Request for Closure Report for the site. After reviewing the report, the WDNR determined that additional investigation activities were necessary to be completed to progress the site to closure.

In 2006, additional investigation activities outlined in a scope of work developed by the Wisconsin Department of Natural Resources (WDNR) and Wisconsin Department of Commerce (COMM) were completed. The scope of work included completing additional Geoprobe® borings between the highway and the embankment, hand auger borings below the steep embankment near the groundwater seep, temporary wells (drive points) below the steep embankment, and collecting one round of groundwater samples from the 17 monitoring wells associated with the site. Results of the additional work was documented in a March 5, 2007 Case Status Update report completed by Sigma.

On August 8, 2008, Sigma submitted a scope of work to the WDNR and COMM for one round of additional groundwater monitoring at the site wells. COMM approved the scope of work in their August 27, 2008 letter. (Appendix A).

#### **SCOPE OF WORK**

The Scope of work was as follows:

- Obtain a right of entry for off site access from Adams County and the neighboring property owner for the scope of work.
- Collect one round of groundwater samples from the 15 monitoring wells and two surface water samples from the seep associated with the site for laboratory analysis of PVOCS plus 1,2-DCA.

- Profiling and disposal of purge water generated during groundwater sampling.
- Prepare and submit a short report documenting the results and observations of the scope of work. The report will include an isoconcentration map, groundwater flow map, and tables summarizing the data.

#### **INVESTIGATION ACTIVITIES**

On September 8, 2008, Sigma technicians completed the groundwater monitoring at the site. The following discussion reflects the actual work completed at the site.

##### **Off-site Access**

Access to neighboring properties was necessary to complete the required scope of work as outlined by the WDNR. Right of entry request was sent to Ron Chamberlin of Adams County and to the owners of the neighboring 1589 CTH H property. Permission was granted to Sigma to enter each property. Documentation of the Right of Entry requests are presented as **Appendix B**.

##### **Groundwater Sampling**

Groundwater samples were collected from the monitoring well network (MW-1 through MW-15) on September 8, 2008 using groundwater-sampling procedures outlined in previous submittals. The groundwater samples were submitted under chain-of-custody to Synergy Environmental Lab, Inc. for laboratory analysis of PVOCS and 1,2-dichloroethane. A bill of lading for the purge water disposal to Port Washington Wastewater Treatment Plant is provided as **Appendix C**.

#### **INVESTIGATIVE RESULTS**

##### **Site Hydrogeology**

Static water levels were measured during each sampling event using an electronic measuring tape. Sigma's review of the static water levels for the sampling event indicates that the groundwater table has risen between 1.6 to 2.47 feet across the site since the last sampling event on July 27, 2006. The observed groundwater flow direction is to the Northwest, consistent with historic data. Static water levels are provided in **Table 1** and a groundwater contour map for the September 8, 2008 sampling event is provided as **Figure 2**.

##### **Groundwater Laboratory Results**

Based on a review of the groundwater analytical results, PVOCS were not identified at concentrations above the analytical method detection limit in groundwater samples collected from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-13, and MW-15. Low-level detectable concentrations of PVOCS below applicable WDNR NR 140 standards were identified in Monitoring Wells MW-10, MW-12 (seep 1 sample and seep 2 sample). Wisconsin Administrative Code Chapter NR 140 Preventive Action Limits or Enforcement Standards were exceeded in Monitoring Wells MW-11 (Trimethylbenzenes, Ethylbenzene, Xylenes and Toluene), and MW-14 (Trimethylbenzenes, Ethylbenzene, Xylenes and Toluene). **Table 2** summarizes the groundwater analytical results for the site. Analytical reports from the September groundwater sampling event are provided as **Appendix D** and estimated extents of groundwater impacts are depicted on **Figure 3**.

**Free Product**

Measurable thicknesses of free product were not observed or measured in any of the monitoring wells during the September 8, 2008 sampling event.

**CONCLUSIONS**

The scope of work completed in 2008 generated additional information regarding the soil and groundwater release at the Castle Rock Elementary site. The soil and groundwater impacts are generally delineated horizontally and have impacted the Castle Rock Elementary site and the neighboring property to the North. A review of the data demonstrates that the impacted groundwater plume has reduced in size and groundwater containing compounds present in concentration above their respective Enforcement Standards do not appear to be affecting White Creek during this sampling event. Groundwater quality data indicates that impacts to the groundwater, although significantly reduced from historic levels, remain above NR 140 Enforcement Standards in areas down-gradient from the release area at the site.

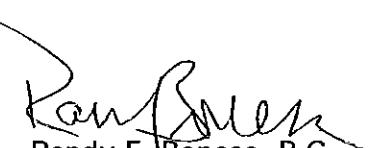
If you have any questions, please call me at (414) 643-4126

Respectfully submitted,

SIGMA ENVIRONMENTAL SERVICES, INC.



Mark H. Krueger, P.G., P.H.  
Senior Project Hydrogeologist



Randy E. Boness, P.G.  
Manager- Geosciences Group

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Attachments

cc: Mr. Herb Barnes- Adams Friendship Area Schools  
Mr. Brian Taylor-COMM

TABLE 1

**STATIC GROUNDWATER ELEVATIONS**  
**ADAMS FRIENDSHIP SCHOOL DISTRICT**  
**CASTLE ROCK ELEMENTARY SCHOOL**

Project Reference #5972

Monitoring Well Identification	Date	Top of Casing Elevation (feet MSL)	Ground Surface Elevation (feet MSL)	Depth to Groundwater (feet bgs)	Corrected Depth to Groundwater	Groundwater Elevation (feet MSL)	Depth to Product	Product Thickness	Product Elevation
<b>MW-1</b>	11/09/95	875.62	875.95	12.11	11.50	864.12	11.28	0.83	864.34
	01/05/96			12.84	11.85	863.77	11.50	1.34	864.12
	02/22/96			13.24	12.29	863.33	11.95	1.29	863.67
	03/18/96			12.55	11.88	863.74	11.64	0.91	863.98
	04/18/96			11.78	11.62	864.00	11.56	0.22	864.06
	06/12/96			11.08	NA	875.62	NA	NA	NA
	06/20/96			10.80	NA	875.62	NA	NA	NA
	07/17/96			11.02	NA	875.62	NA	NA	NA
	07/18/96			11.01	NA	875.62	NA	NA	NA
	08/20/96			11.51	11.50	864.12	11.50	0.01	864.12
	09/19/96			11.97	11.94	863.68	11.93	0.04	863.69
	01/14/97			13.96	12.64	862.98	12.17	1.79	863.45
	08/07/97			12.15	NA	863.47	NA	NA	NA
	07/06/00			10.85	NA	864.77	NA	NA	NA
	01/29/04			13.17	NA	862.45	NA	NA	NA
	05/06/04			12.55	NA	863.07	NA	NA	NA
	09/23/04			10.52	NA	865.10	NA	NA	NA
	07/27/06			12.54	NA	863.08	NA	NA	NA
	9/8/2008			10.20	NA	865.42	NA	NA	NA
<b>MW-2</b>	11/09/95	877.7	875.78	13.43	NA	864.27	NA	NA	NA
	11/29/95			13.51	NA	864.19	NA	NA	NA
	01/05/96			13.84	NA	863.86	NA	NA	NA
	02/22/96			14.06	NA	863.64	NA	NA	NA
	03/18/96			13.86	NA	863.84	NA	NA	NA
	04/18/96			13.64	NA	864.06	NA	NA	NA
	06/12/96			13.13	NA	864.57	NA	NA	NA
	06/20/96			12.88	NA	864.82	NA	NA	NA
	07/17/96			13.07	NA	864.63	NA	NA	NA
	07/18/96			13.04	NA	864.66	NA	NA	NA
	08/20/96			11.36	NA	866.34	NA	NA	NA
	09/19/96			14.00	NA	863.70	NA	NA	NA
	01/14/97			14.63	NA	863.07	NA	NA	NA
	08/07/97			14.23	NA	863.47	NA	NA	NA
	07/06/00			12.91	NA	864.79	NA	NA	NA
	01/29/04			15.27	NA	862.43	NA	NA	NA
	05/06/04			14.65	NA	863.05	NA	NA	NA
	09/23/04			12.59	NA	865.11	NA	NA	NA
	07/27/06			14.62	NA	863.08	NA	NA	NA
	9/8/2008			12.25	NA	865.45	NA	NA	NA
<b>MW-3</b>	11/09/95	875.62	876.13	11.00	NA	864.62	NA	NA	NA
	11/29/95			11.09	NA	864.53	NA	NA	NA
	01/05/96			11.42	NA	864.20	NA	NA	NA
	02/22/96			11.64	NA	863.98	NA	NA	NA
	04/18/96			11.23	NA	864.39	NA	NA	NA
	06/12/96			10.68	NA	864.94	NA	NA	NA
	06/20/96			10.68	NA	864.94	NA	NA	NA
	06/27/96			10.40	NA	865.22	NA	NA	NA
	07/17/96			10.61	NA	865.01	NA	NA	NA
	07/18/96			10.57	NA	865.05	NA	NA	NA
	08/07/97			11.15	NA	864.47	NA	NA	NA
	09/19/96			11.55	NA	864.07	NA	NA	NA
	01/14/97			12.21	NA	863.41	NA	NA	NA
	07/06/00			11.78	NA	863.84	NA	NA	NA
	01/29/04			10.45	NA	865.17	NA	NA	NA
	05/06/04			12.87	NA	862.75	NA	NA	NA
	09/23/04			12.21	NA	863.41	NA	NA	NA
	07/27/06			10.07	NA	865.55	NA	NA	NA
	9/8/2008			12.19	NA	863.43	NA	NA	NA

Notes:

Groundwater elevations for wells containing product have been corrected using:

[(Corrected Depth to Groundwater = Depth to Groundwater - (Product Thickness x Density of Product))]

Density of recovered product = 0.74

feet MSL = feet above Mean Sea Level

feet bgs = feet below ground surface

TABLE 1

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**Project Reference #5972**

Monitoring Well Identification	Date	Top of Casing Elevation (feet MSL)	Ground Surface Elevation (feet MSL)	Depth to Groundwater (feet bgs)	Corrected Depth to Groundwater	Groundwater Elevation (feet MSL)	Depth to Product	Product Thickness	Product Elevation
<b>MW-4</b>	11/09/95	875.62	876.11	11.61	NA	864.01	NA	NA	NA
	11/29/95			11.73	NA	863.89	NA	NA	NA
	01/05/96			12.05	NA	863.57	NA	NA	NA
	04/18/96			11.86	NA	863.76	NA	NA	NA
	06/12/96			11.37	NA	864.25	NA	NA	NA
	06/20/96			11.02	NA	864.60	NA	NA	NA
	07/17/96			11.31	NA	864.31	NA	NA	NA
	07/18/96			11.26	NA	864.36	NA	NA	NA
	08/20/96			11.88	NA	863.74	NA	NA	NA
	09/19/96			12.21	NA	863.41	NA	NA	NA
	01/14/97			12.78	NA	862.84	NA	NA	NA
	08/07/97			12.42	NA	863.20	NA	NA	NA
	07/06/00			11.16	NA	864.46	NA	NA	NA
	01/29/04			13.40	NA	862.22	NA	NA	NA
	05/06/04			12.80	NA	862.82	NA	NA	NA
	09/23/04			10.85	NA	864.77	NA	NA	NA
	07/27/06			12.78	NA	862.84	NA	NA	NA
	9/8/2008			10.52	NA	865.10	NA	NA	NA
<b>MW-5</b>	11/09/95	875.13	875.53						
	11/29/95			12.36	11.31	862.77	10.94	1.42	-10.94
	01/05/96			13.16	11.67	861.97	11.14	2.02	-11.14
	02/22/96			13.47	12.26	861.66	11.84	1.63	-11.84
	03/18/96			12.99	11.66	862.14	11.19	1.80	-11.19
	04/18/96			12.29	11.42	862.84	11.12	1.17	-11.12
	06/12/96			11.55	10.96	863.58	10.75	0.80	-10.75
	06/20/96			10.95	10.62	864.18	10.50	0.45	-10.50
	07/17/96			10.98	10.88	864.15	10.84	0.14	-10.84
	07/18/96			10.93	10.84	864.20	10.81	0.12	-10.81
	08/20/96			11.74	11.42	863.39	11.31	0.43	-11.31
	09/19/96			13.51	11.88	861.62	11.31	2.20	-11.31
	01/14/97			14.08	12.46	861.05	11.89	2.19	-11.89
	08/07/97			14.01	14.00	861.12	13.99	0.02	-13.99
	07/06/00			10.70	NA	864.43	NA	NA	NA
	01/29/04			12.95	NA	862.18	NA	NA	NA
	05/06/04			12.33	NA	862.80	NA	NA	NA
	09/23/04			10.43	NA	864.70	NA	NA	NA
	07/27/06			12.33	NA	862.80	NA	NA	NA
	9/8/2008			10.12	NA	865.01	NA	NA	NA
<b>MW-6</b>	11/09/95	874.93	872.67	12.05	NA	862.88	NA	NA	NA
	11/29/95			12.20	NA	862.73	NA	NA	NA
	01/05/96			12.46	NA	862.47	NA	NA	NA
	02/22/96			12.63	NA	862.30	NA	NA	NA
	03/18/96			12.44	NA	862.49	NA	NA	NA
	04/18/96			12.24	NA	862.69	NA	NA	NA
	06/12/96			11.84	NA	863.09	NA	NA	NA
	06/20/96			11.95	NA	862.98	NA	NA	NA
	07/17/96			11.81	NA	863.12	NA	NA	NA
	07/18/96			11.79	NA	863.14	NA	NA	NA
	08/20/96			12.31	NA	862.62	NA	NA	NA
	09/19/96			12.65	NA	862.28	NA	NA	NA
	01/14/97			13.12	NA	861.81	NA	NA	NA
	08/07/97			12.78	NA	862.15	NA	NA	NA
	07/06/00			11.67	NA	863.26	NA	NA	NA
	01/29/04			13.10	NA	874.93	NA	NA	NA
	05/06/04			13.10	NA	874.93	NA	NA	NA
	09/23/04			11.23	NA	861.83	NA	NA	NA
	07/27/06					863.70	NA	NA	NA

Notes:

Groundwater elevations for wells containing product have been corrected using:

[(Corrected Depth to Groundwater = Depth to Groundwater - (Product Thickness x Density of Product))]

Density of recovered product = 0.74

feet MSL = feet above Mean Sea Level

feet bgs = feet below ground surface

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**STATIC GROUNDWATER ELEVATIONS**  
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**CASTLE ROCK ELEMENTARY SCHOOL**  
**Project Reference #5972**

Monitoring Well Identification	Date	Top of Casing Elevation (feet MSL)	Ground Surface Elevation (feet MSL)	Depth to Groundwater (feet bgs)	Corrected Depth to Groundwater	Groundwater Elevation (feet MSL <sub>r</sub> )	Depth to Product	Product Thickness	Product Elevation
MW-7	11/09/95	876.59	874.06	15.03	13.42	861.56	12.85	2.18	-12.85
	01/05/96			15.48	13.74	861.11	13.13	2.35	-13.13
	02/22/96			15.68	13.97	860.91	13.37	2.31	-13.37
	03/18/96			15.20	13.76	861.39	13.26	1.94	-13.26
	04/18/96			14.74	13.51	861.85	13.08	1.66	-13.08
	06/12/96			13.95	13.08	862.64	12.78	1.17	-12.78
	06/20/96			13.21	12.68	863.38	12.50	0.71	-12.50
	07/17/96			14.02	12.98	862.57	12.62	1.40	-12.62
	07/18/96			14.09	12.99	862.50	12.61	1.48	-12.61
	08/20/96			14.97	13.56	861.62	13.07	1.90	-13.07
	09/19/96			14.71	13.93	861.88	13.65	1.06	-13.65
	01/14/97			14.49	14.38	862.10	14.34	0.15	-14.34
	08/07/97			12.05	11.95	864.54	11.92	0.13	-11.92
	07/06/00			12.80	NA	863.79	NA	0.00	NA
	01/29/04			14.93	NA	861.66	NA	NA	NA
	05/06/04			14.36	NA	862.23	NA	NA	NA
	09/23/04			13.52	NA	863.07	NA	NA	NA
	07/27/06			14.35	NA	862.24	NA	NA	NA
	9/8/2008			12.71	NA	863.88	NA	NA	NA
MW-8	11/09/95	877.64	875.32	14.15	NA	863.49	NA	NA	NA
	11/29/95			14.25	NA	863.39	NA	NA	NA
	01/05/96			14.57	NA	863.07	NA	NA	NA
	02/22/96			14.76	NA	862.88	NA	NA	NA
	03/18/96			14.54	NA	863.10	NA	NA	NA
	04/18/96			14.38	NA	863.10	NA	NA	NA
	06/12/96			13.92	NA	863.72	NA	NA	NA
	06/20/96			13.57	NA	864.07	NA	NA	NA
	07/17/96			13.85	NA	863.26	NA	NA	NA
	07/18/96			13.83	NA	863.72	NA	NA	NA
	08/20/96			14.36	NA	863.28	NA	NA	NA
	09/19/96			14.74	NA	862.90	NA	NA	NA
	01/14/97			15.31	NA	862.33	NA	NA	NA
	08/07/97			14.95	NA	862.69	NA	NA	NA
	07/06/00			13.70	NA	863.94	NA	NA	NA
	01/29/04			15.87	NA	861.77	NA	NA	NA
	05/06/04			15.28	NA	862.36	NA	NA	NA
	09/23/04			13.50	NA	864.14	NA	NA	NA
	07/27/06			15.28	NA	862.36	NA	NA	NA
	9/8/2008			13.18	NA	864.46	NA	NA	NA
MW-9	11/09/95	874.98	872.98	12.26	NA	862.72	NA	NA	NA
	11/29/95			12.42	NA	862.56	NA	NA	NA
	01/05/96			12.70	NA	862.28	NA	NA	NA
	02/22/96			12.90	NA	862.08	NA	NA	NA
	03/18/96			12.62	NA	862.36	NA	NA	NA
	04/18/96			12.48	NA	862.50	NA	NA	NA
	06/12/96			12.12	NA	862.86	NA	NA	NA
	06/20/96			11.67	NA	863.31	NA	NA	NA
	07/17/96			12.11	NA	862.87	NA	NA	NA
	07/18/96			13.38	NA	862.91	NA	NA	NA
	08/20/96			12.57	NA	862.41	NA	NA	NA
	09/19/96			12.92	NA	862.06	NA	NA	NA
	01/14/97			13.05	NA	861.93	NA	NA	NA
	08/07/97			11.92	NA	863.06	NA	NA	NA
	07/06/00			13.86	NA	861.12	NA	NA	NA
	01/29/04			13.37	NA	861.61	NA	NA	NA
	05/06/04			11.83	NA	863.15	NA	NA	NA
	09/23/04			13.35	NA	861.63	NA	NA	NA
	07/27/06			11.60	NA	863.38	NA	NA	NA

Notes:

Groundwater elevations for wells containing product have been corrected using:

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Density of recovered product = 0.74

feet MSL = feet above Mean Sea Level

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**TABLE 1**  
**STATIC GROUNDWATER ELEVATIONS**  
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**CASTLE ROCK ELEMENTARY SCHOOL**  
**Project Reference #5572**

Monitoring Well Identification	Date	Top of Casing Elevation (feet MSL)	Ground Surface Elevation (feet MSL)	Depth to Groundwater (feet bgs)	Corrected Depth to Groundwater	Groundwater Elevation (feet MSL)	Depth to Product	Product Thickness	Product Elevation
<b>MW-10</b>	11/09/95	875.00	872.60						
	11/29/95								
	01/05/96								
	02/22/96								
	03/18/96								
	04/18/96								
	06/12/96								
	06/20/96								
	07/17/96								
	07/18/96								
	09/19/96								
	01/14/97								
	08/07/97								
	07/06/00								
	01/29/04								
	05/06/04								
	09/23/04								
	07/27/06								
	9/8/2008								
<b>MW-11</b>	11/09/95	874.29	871.85						
	11/29/95								
	01/05/96								
	02/22/96								
	03/18/96								
	04/18/96								
	06/12/96								
	06/20/96								
	07/17/96								
	07/18/96								
	09/19/96								
	01/14/97								
	08/07/97								
	07/06/00								
	01/29/04								
	05/06/04								
	09/23/04								
	07/27/06								
	9/8/2008								
<b>MW-12</b>	11/09/95	875.32	872.83						
	11/29/95								
	01/05/96								
	02/22/96								
	03/18/96								
	04/18/96								
	06/12/96								
	06/20/96								
	07/17/96								
	07/18/96								
	09/19/96								
	01/14/97								
	08/07/97								
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<b>MW-13</b>	01/29/04	Not Surveyed		16.21	NA		NA	NA	NA
	05/06/04			15.84	NA	NA	NA	NA	NA
	09/23/04			14.73	NA	NA	NA	NA	NA
	07/27/06			15.83	NA	NA	NA	NA	NA
	9/8/2008			14.55	NA	NA	NA	NA	NA
	01/29/04	Not Surveyed		16.77	NA		NA	NA	NA
<b>MW-14</b>	05/06/04			16.43	NA	NA	NA	NA	NA
	09/23/04			15.30	NA	NA	NA	NA	NA
	07/27/06			16.41	NA	NA	NA	NA	NA
	9/8/2008			15.12	NA	NA	NA	NA	NA
	01/29/04	Not Surveyed		15.50	NA		NA	NA	NA
	05/06/04			15.16	NA	NA	NA	NA	NA
<b>MW-15</b>	09/23/04			14.04	NA	NA	NA	NA	NA
	07/27/06			15.13	NA	NA	NA	NA	NA
	9/8/2008			13.88	NA	NA	NA	NA	NA
	11/09/95	874.43	875.1						
	11/29/95								
	01/05/96								
<b>RW-1</b>	02/22/96			12.84	12.23	861.59	12.01	0.83	-12.01
	03/18/96			12.14	11.11	862.29	10.75	1.39	-10.75
	04/18/96			11.69	10.80	862.74	10.49	1.20	-10.49
	06/12/96			10.59	10.32	863.84	10.22	0.37	-10.22
	06/20/96			10.03	9.96	864.40	9.94	0.09	-9.94
	07/17/96			10.37	10.24	864.06	10.20	0.17	-10.20
	07/18/96			10.38	10.23	864.05	10.18	0.20	-10.18
	07/24/96			9.42	9.25	865.01	9.19	0.23	-9.19
	09/19/96			10.96	10.09	863.47	9.79	1.17	-9.79
	01/14/97			10.70	10.61	863.73	10.58	0.12	-10.58
	08/07/97			10.22	NA	864.21	NA	0.00	0.00
	11/09/95	873.01	873.35						
<b>RW-2</b>	11/29/95								
	01/05/96								
	02/22/96								
	03/18/96								
	04/18/96								
	06/12/96								
	06/20/96								
	06/27/96								
	07/17/96								
	07/18/96								
	07/24/96								
	09/19/96								
<b>RW-3</b>	11/09/95	872.68	872.85						
	11/29/95								
	01/05/96								
	02/22/96								
	03/18/96								
	04/18/96								
	06/12/96								
	06/20/96								
	06/27/96								
	07/17/96								
	07/18/96								
	07/24/96								

Notes:

Groundwater elevations for wells containing product have been corrected using:

[(Corrected Depth to Groundwater = Depth to Groundwater - (Product Thickness x Density of Product))]

Density of recovered product = 0.74

feet MSL = feet above Mean Sea Level

feet bgs = feet below ground surface

TABLE 1  
STATIC GROUNDWATER ELEVATIONS  
ADAMS FRIENDSHIP SCHOOL DISTRICT  
CASTLE ROCK ELEMENTARY SCHOOL  
Project Reference #5572

Monitoring Well Identification	Date	Top of Casing Elevation (feet MSL)	Ground Surface Elevation (feet MSL)	Depth to Groundwater (feet bgs)	Corrected Depth to Groundwater	Groundwater Elevation (feet MSL)	Depth to Product	Product Thickness	Product Elevation
VMP-1	11/09/95	873.19	873.43						
	11/29/95								
	01/05/96								
	02/22/96								
	03/18/96								
	04/18/96								
	06/12/96								
	06/20/96								
	06/27/96								
	07/17/96								
VMP-2	07/18/96								
	07/06/00								
	11/09/95	873.16	873.52						
	11/29/95								
	01/05/96								
	02/22/96								
	03/18/96								
	04/18/96								
	06/12/96								
	06/20/96								
VMP-3	06/27/96								
	07/17/96								
	07/18/96								
	07/06/00								
	11/09/95	873.86	874.06						
	11/29/95								
	01/05/96								
	02/22/96								
	03/18/96								
	04/18/96								

Notes:

Groundwater elevations for wells containing product have been corrected using:

[Corrected Depth to Groundwater = Depth to Groundwater - (Product Thickness x Density of Product)]

Density of recovered product = 0.74

feet MSL = feet above Mean Sea Level

feet bgs = feet below ground surface

TABLE 1

STATIC GROUNDWATER ELEVATIONS  
 ADAMS FRIENDSHIP SCHOOL DISTRICT  
 CASTLE ROCK ELEMENTARY SCHOOL  
 Project Reference #5972

Monitoring Well Identification	Date	Top of Casing Elevation (feet MSL)	Ground Surface Elevation (feet MSL)	Depth to Groundwater (feet bgs)	Corrected Depth to Groundwater (feet MSL)	Groundwater Elevation (feet MSL)	Depth to Product	Product Thickness	Product Elevation
AS-1	11/09/95	872.87	873.22						
	11/29/95								
	01/05/96								
	02/22/96								
	03/18/96								
	04/18/96								
	06/12/96								
	06/20/96								
	06/27/96								
	07/17/96								
	07/18/96								
	07/24/96								
	08/20/96								
	09/19/96								
VIEW-1	01/14/97								
	11/09/95	873.23	873.25						
	11/29/95								
	01/05/96								
	02/22/96								
	03/18/96								
	04/18/96								
	06/12/96								
	06/20/96								
	06/27/96								
	07/17/96								
	07/18/96								
	07/24/96								
	08/20/96								
	09/19/96								
	01/14/97								

Notes:

Groundwater elevations for wells containing product have been corrected using:

[(Corrected Depth to Groundwater = Depth to Groundwater - (Product Thickness x Density of Product))]

Density of recovered product = 0.74

feet MSL = feet above Mean Sea Level

feet bgs = feet below ground surface

**TABLE 2**  
**GROUNDWATER ANALYTICAL QUALITY RESULTS**  
**VOLATILE ORGANIC COMPOUNDS**  
**ADAMS FRIENDSHIP SCHOOL DISTRICT**  
**CASTLE ROCK ELEMENTARY SCHOOL**  
**Project Reference #5972**

Monitoring Well Identification:				MW-1												MW-2												MW-3															
Parameter	Unit	NR 140		Collection Date																																							
		ES	PAL	11/09/95	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	11/09/95	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	11/09/95	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08										
Gasoline Range Organics	µg/L	NS	NS	NSMP	14,200	NSMP	13,000	NA	NA	NA	NA	NA	NA	212	772	<65	<20	NA	<50	<50	<65	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
Lead	µg/L	15	1.5	NSMP	NA	NSMP	NA	NA	NA	NA	NA	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	NA	NA	NA	NA														
Benzene	µg/L	5.0	0.5	NSMP	<b>398</b>	NSMP	<b>230</b>	<1.4	<0.2	<0.5	0.721	<0.31	<0.24	<b>2.64</b>	<b>9.31</b>	NA	<0.31	<0.35	<0.2	<0.5	<0.5	<0.31	<0.24	<0.2	<0.5	<1.0	<0.31	<0.35	<0.2	<0.5	<0.5	<0.31	<0.24	<0.2	<0.5	<0.5	<0.31	<0.24					
1,2-Dichloroethane	µg/L	5.0	0.5	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	<0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	<0.41	NA	NA	NA	<0.41														
Ethylbenzene	µg/L	700	140	NSMP	<b>350</b>	NSMP	<b>420</b>	15	<0.5	<5.0	<5.0	<0.5	<0.35	NA	5.74	NA	<0.35	<0.37	<0.5	<5.0	<5.0	<0.5	<0.35	<1.0	<1.0	<1.1	<0.35	<0.37	<0.5	<5.0	<5.0	<0.5	<0.35	<0.5	<5.0	<5.0	<0.5	<0.35					
Methyl Tert Butyl Ether	µg/L	60	12	NSMP	<b>58.1</b>	NSMP	<14	<b>12</b>	<0.5	<0.511	<0.511	<0.3	<0.7	NA	<0.98	<0.98	0.79	<0.36	<0.5	<0.511	<0.511	<0.3	<0.7	NA	<1.0	<0.98	<0.29	<0.36	<0.5	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	1.24	<0.7						
Naphthalene	µg/L	40	8.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.8	NA	NA	<0.8	NA																
Toluene	µg/L	1,000	200	NSMP	<b>2,460</b>	NSMP	<b>2,400</b>	13	1.0	<5.0	<5.0	<0.3	<0.39	15.3	168	5.2	0.7	<0.38	<0.2	<5.0	<5.0	<0.3	<0.39	<2.0	<1.0	<1.0	<0.32	<0.38	<0.2	<5.0	<5.0	<0.3	<0.39	<2.0	<1.0	<1.0	<0.32	<0.38	<0.2	<5.0	<5.0	<0.3	<0.39
1,2,4-Trimethylbenzene	µg/L	**	**	NSMP	1,160	NSMP	1,500	580	9.2	<5.0	6.78	<0.4	<0.51	NA	23.2	<1.2	<0.36	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NA	<1.0	<1.2	<0.36	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NA	<1.0	<1.2	<0.36	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51
1,3,5-Trimethylbenzene	µg/L	**	**	NSMP	351	NSMP	430	250	6.4	<5.0	<5.0	<0.31	<0.23	NA	23	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.31	<0.23	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.31	<0.23	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.31	<0.23
Total Trimethylbenzenes	µg/L	480	96	NSMP	<b>1,511</b>	NSMP	<b>1,930</b>	<b>830</b>	15.6	<5.0	6.78	<0.4	<0.51	NA	46.2	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51
Xylenes	µg/L	10,000	1,000	NSMP	<b>2,598</b>	NSMP	<b>11,800</b>	<b>1,140</b>	0.94	<5.0	<5.0	<0.62	<1.0	6.4	82.6	1.2	<1.0	6.4	<0.5	<5.0	<5.0	<0.62	<1.0	6.4	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51

Intes-

J = analyte detected between Limit of Detection and Limit of Quantitation

$\mu\text{g/l}$  = micrograms per liter (equivalent to parts per billion)

NA = Not Analyzed NS = No Standard

NSMP = Not sampled due to measurable product in well

NR 140 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

**TABLE 2**  
**GROUNDWATER ANALYTICAL QUALITY RESULTS**  
**VOLATILE ORGANIC COMPOUNDS**  
**ADAMS FRIENDSHIP SCHOOL DISTRICT**  
**CASTLE ROCK ELEMENTARY SCHOOL**  
**Project Reference #5972**

Monitoring Well Identification:				MW-4												MW-5												MW-6									
Parameter	Unit	NR 140		Collection Date																																	
		ES	PAL	11/09/95	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	11/09/95	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	11/09/95	06/20/96	01/14/97	08/07/97	07/06/00	07/27/06	09/08/08							
Gasoline Range Organics	µg/L	NS	NS	<50	<50	<65	<20	NA	NA	NA	NA	NA	NA	NSMP	NSMP	NSMP	NSMP	NA	<50	<50	<65	<20	NA	NA	NA												
Lead	µg/L	15	1.5	<2.0	NA	NSMP	NSMP	NSMP	NSMP	NA	<2.0	NA	NA	NA	NA	NA	NA																				
Benzene	µg/L	5.0	0.5	<0.2	<0.5	<1.0	0.49	<0.35	<0.2	<0.5	<0.5	<0.31	<0.24	NSMP	NSMP	NSMP	NSMP	<1.4	<0.4	<0.5	<0.5	<0.31	<0.24	<0.2	<0.5	<1.0	<0.31	<0.35	<0.31	<0.24	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	µg/L	5.0	0.5	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	<0.41	NA	<0.4	<0.41	NA	NA	NA	<0.4	<0.41																
Ethylbenzene	µg/L	700	140	<1.0	<1.0	<1.1	<0.35	<0.37	<0.5	<5.0	<5.0	<0.5	<0.35	NSMP	NSMP	NSMP	NSMP	17	<1.0	<5.0	<5.0	<0.5	<0.35	<1.0	<1.0	<1.1	<0.35	<0.37	<0.5	<0.35	NA	NA	NA	NA	NA	NA	
Methyl Tert Butyl Ether	µg/L	60	12	NA	<1.0	<0.98	<0.29	1.4	<0.5	<0.511	<0.511	<0.3	<0.7	NSMP	NSMP	NSMP	NSMP	7.0	<1.0	<0.511	<0.511	<0.3	<0.7	NA	<1.0	<0.98	<0.29	<0.36	<0.3	<0.7	NA	NA	NA	NA	NA	NA	
Naphthalene	µg/L	40	8.0	NA	NA	NA	NA	NA	NA	NA	<0.8	NA	<0.8	NA	NA	NA	<0.8	NA																			
Toluene	µg/L	1,000	200	<2.0	<1.0	<1.0	<0.32	<0.38	<0.2	<5.0	<5.0	<0.3	<0.39	NSMP	NSMP	NSMP	NSMP	66	<0.4	<5.0	<5.0	<0.3	<0.39	<2.0	<1.0	<1.0	<0.32	<0.38	<0.3	<0.39	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	µg/L	**	**	NA	<1.0	<1.2	<0.36	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NSMP	NSMP	NSMP	NSMP	450	87	5.13	176	3.26	<0.51	NA	<1.0	2.2	<0.36	<0.37	<0.4	<0.51	NA	<1.0	2.2	<0.36	<0.37	<0.4	<0.51
1,3,5-Trimethylbenzene	µg/L	**	**	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.31	<0.23	NSMP	NSMP	NSMP	NSMP	310	47	7.36	161	5.77	<0.23	NA	<1.0	<1.2	<0.38	<0.37	<0.31	<0.23	NA	<1.0	2.2	<0.38	<0.37	<0.31	<0.23
Total Trimethylbenzenes	µg/L	480	96	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NSMP	NSMP	NSMP	NSMP	760	134	12.49	337	9.03	<0.51	NA	<1.0	2.2	<0.38	<0.37	<0.4	<0.51	NA	<1.0	2.2	<0.38	<0.37	<0.4	<0.51
Xylenes	µg/L	10,000	1,000	<2.0	<1.0	<3.6	<1.09	<1.04	<0.5	<5.0	<5.0	<0.62	<1.0	NSMP	NSMP	NSMP	NSMP	860	18	<5.0	23.3	<0.62	<1.0	<2.0	<1.0	<3.6	<1.09	<1.04	<0.62	<1.0	<2.0	<1.0	<3.6	<1.09	<1.04	<0.62	<1.0

Notes:

J = analyte detected between Limit of Detection and Limit of Quantitation

µg/L = micrograms per liter (equivalent to parts per billion)

NA = Not Analyzed      NS = No Standard

NSMP = Not sampled due to measurable product in well

NR 140 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

Exceedances:    BOLD = concentration exceeds Chapter NR 140 PAL    BOX = concentration exceeds Chapter NR 140 ES

TABLE 2  
 GROUNDWATER ANALYTICAL QUALITY RESULTS  
 VOLATILE ORGANIC COMPOUNDS  
 ADAMS FRIENDSHIP SCHOOL DISTRICT  
 CASTLE ROCK ELEMENTARY SCHOOL  
 Project Reference #5972

Monitoring Well Identification:				MW-7												MW-8												MW-9															
Parameter	Unit	NR 140		Collection Date																																							
		ES	PAL	11/09/95	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	11/09/95	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	11/09/95	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08										
Gasoline Range Organics	µg/L	NS	NS	NSMP	NSMP	NSMP	NSMP	NA	NA	NA	NA	NA	NA	<50	124	<65	<20	NA	NA	NA	NA	NA	NA	<50	<50	<65	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Lead	µg/L	15	1.5	NSMP	NSMP	NSMP	NSMP	NA	NA	NA	NA	NA	NA	<2.0	NA	<2.0	NA	NA	NA	NA	NA																						
Benzene	µg/L	5.0	0.5	NSMP	NSMP	NSMP	NSMP	<3.5	<0.8	<0.5	<0.5	<0.31	<0.24	NA	NA	NA	<0.31	<0.35	<0.2	<0.5	<0.5	<0.31	<0.24	<0.2	<0.5	<1.0	<0.31	<0.35	<0.2	<0.5	<0.5	<0.31	<0.24	<0.5	<0.31	<0.24	<0.5	<0.31	<0.24				
1,2-Dichloroethane	µg/L	5.0	0.5	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	<0.41	NA	<0.4	<0.41	NA	NA	NA	NA	NA																						
Ethylbenzene	µg/L	700	140	NSMP	NSMP	NSMP	NSMP	7.0	<2.0	<5.0	<5.0	<0.5	<0.35	NA	1.07	NA	<0.35	<0.37	<0.5	<5.0	<5.0	<0.5	<0.35	<1.0	<1.0	<1.1	<0.35	<0.37	<0.5	<5.0	<5.0	<0.5	<0.35	<1.0	<0.35	<0.5	<0.35						
Methyl Tert Butyl Ether	µg/L	60	12	NSMP	NSMP	NSMP	NSMP	<3.6	<2.0	<0.511	<0.511	<0.3	<0.7	NA	<1.0	<0.98	<0.29	<0.36	<0.5	<0.511	<0.511	<0.3	<0.7	NA	<1.0	<0.98	<0.29	<0.36	<0.5	<0.511	<0.511	<0.3	<0.7	NA	<1.0	<0.98	<0.29	<0.36	<0.5	<0.511	<0.3	<0.7	
Naphthalene	µg/L	40	8.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.8	NA	<0.8	NA	NA	NA	NA	NA																								
Toluene	µg/L	1,000	200	NSMP	NSMP	NSMP	NSMP	<3.8	<0.8	<5.0	<5.0	<0.3	<0.39	NA	1.73	NA	<0.32	<0.38	<0.2	<5.0	<5.0	<0.3	<0.39	<2.0	<1.0	<1.0	<0.32	<0.38	<0.2	<5.0	<5.0	<0.3	<0.39	NA	<1.0	<1.0	<0.32	<0.38	<0.2	<5.0	<5.0	<0.3	<0.39
1,2,4-Trimethylbenzene	µg/L	**	**	NSMP	NSMP	NSMP	NSMP	760	75	<5.0	9.56	<0.4	<0.51	NA	17.6	<1.2	<0.36	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NA	<1.0	<1.2	<0.36	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NA	<1.0	<1.2	<0.36	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51
1,3,5-Trimethylbenzene	µg/L	**	**	NSMP	NSMP	NSMP	NSMP	320	200	17.2	93.7	1.25	<0.23	NA	4.32	<1.2	<0.36	<0.37	<0.2	<5.0	<5.0	<0.31	<0.23	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.31	<0.23	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.31	<0.23
Total Trimethylbenzenes	µg/L	480	96	NSMP	NSMP	NSMP	NSMP	1,080	275	17.2	103.26	1.25	<0.51	NA	21.92	<1.2	<0.36	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51	NA	<1.0	<1.2	<0.38	<0.37	<0.2	<5.0	<5.0	<0.4	<0.51
Xylenes	µg/L	10,000	1,000	NSMP	NSMP	NSMP	NSMP	1,370	<2.0	<5.0	<5.0	<0.62	<1.0	NA	9.42	NA	<1.09	1.04	<0.5	<5.0	<5.0	<0.62	<1.0	<2.0	<1.0	<3.6	<1.09	<1.04	<0.5	<5.0	<5.0	<0.62	<1.0	NA	<1.0	<3.6	<1.09	<1.04	<0.5	<5.0	<5.0	<0.62	<1.0

Notes:

J = analyte detected between Limit of Detection and Limit of Quantitation

µg/L = micrograms per liter (equivalent to parts per billion)

NA = Not Analyzed NS = No Standard

NSMP = Not sampled due to measurable product in well

NR 140 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

Exceedances: **BOLD** = concentration exceeds Chapter NR 140 PAL **BOX** = concentration exceeds Chapter NR 140 ES

**TABLE 2**  
**GROUNDWATER ANALYTICAL QUALITY RESULTS**  
**VOLATILE ORGANIC COMPOUNDS**  
**ADAMS FRIENDSHIP SCHOOL DISTRICT**  
**CASTLE ROCK ELEMENTARY SCHOOL**  
**Project Reference #5972**

Monitoring Well Identification:				MW-10								MW-11								MW-12										
Parameter	Unit	NR 140									Collection Date																			
		ES	PAL	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	06/20/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08
Gasoline Range Organics	µg/L	NS	NS	2,050	490	7,500	NA	NA	NA	NA	NA	NA	26,000	10,000	35,000	NA	NA	NA	NA	NA	<NA	3,830	13,000	8100	NA	NA	NA	NA	NA	NA
Lead	µg/L	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	µg/L	5.0	0.5	<b>442</b>	<b>89</b>	<b>1,200</b>	<b>12</b>	<0.2	<0.5	<b>2.5</b>	<0.31	<0.24	<b>8,130</b>	<b>1,900</b>	<b>8,800</b>	<b>7,300</b>	<b>2.4</b>	<b>17.6</b>	<b>86.2</b>	<15.5	<12	<b>1,080</b>	<b>1,400</b>	<b>1,200</b>	<b>46</b>	<4.0	<0.5	<b>10.8</b>	<15.5	<0.24
1,2-Dichloroethane	µg/L	5.0	0.5	NA	NA	NA	NA	NA	NA	NA	<0.4	<0.41	NA	NA	NA	NA	NA	NA	NA	<20	<20.5	NA	NA	NA	NA	NA	NA	NA	<20	<0.41
Ethylbenzene	µg/L	700	140	NA	7.5	<b>200</b>	<b>240</b>	<0.5	<5.0	8.37	2.71	1.46	<b>379</b>	<b>240</b>	<b>700</b>	<b>1,300</b>	<b>460</b>	<b>447</b>	<b>1,690</b>	<b>202</b>	<b>870</b>	62.8	<b>170</b>	<b>220</b>	<b>1,200</b>	<b>400</b>	<b>256</b>	132	<b>175</b>	<0.35
Methyl Tert Butyl Ether	µg/L	60	12	<20	<0.98	<5.8	<b>35</b>	<0.5	0.552	4.15	<0.3	<0.7	<b>110</b>	<9.8	<14	<72	<0.5	2.24	<b>162</b>	<15	<35	<20	2.6	<5.8	<36	<10	1.04	<5.11	<15	<0.7
Naphthalene	µg/L	40	8.0	NA	NA	NA	NA	NA	NA	NA	4.44	NA	NA	NA	NA	NA	NA	NA	<40	NA	NA	NA	NA	NA	NA	NA	<40	NA		
Toluene	µg/L	1,000	200	<b>708</b>	160	<b>3,400</b>	<b>1,100</b>	<0.2	<5.0	<5.0	1.18	<0.39	<b>9,460</b>	<b>4,800</b>	<b>17,000</b>	<b>20,000</b>	<b>1,700</b>	<b>6,540</b>	<b>15,500</b>	<b>2,040</b>	<b>2,820</b>	<b>1,540</b>	<b>3,500</b>	<b>3,700</b>	<b>11,000</b>	<b>330</b>	110	70.9	<15	<0.39
1,2,4-Trimethylbenzene	µg/L	**	**	62.9	9.8	230	480	1.1	62.7	59.9	57.6	14	347	240	640	1,400	790	277	2,310	263	1,370	106	190	280	1,600	820	519	964	1,240	19.2
1,3,5-Trimethylbenzene	µg/L	**	**	<20	3.7	62	160	0.34	25.7	32.9	22.8	11.4	<100	69	160	400	200	116	760	86.9	480.0	32	58	72	460	200	185	443	607	52
Total Trimethylbenzenes	µg/L	480	96	62.9	13.5	<b>292</b>	<b>640</b>	1.44	88.4	92.8	80.4	25.4	<b>347</b>	<b>309</b>	<b>800</b>	<b>1,800</b>	<b>990</b>	<b>393</b>	<b>3,070</b>	<b>350</b>	<b>1,850</b>	<b>138</b>	<b>248</b>	<b>352</b>	<b>2,060</b>	<b>1,020</b>	<b>704</b>	<b>1,407</b>	<b>1,847</b>	71.2
Xylenes	µg/L	10,000	1,000	283	58	<b>1,380</b>	<b>1,670</b>	1.7	55.1	42.7	30.83	7.41 <sup>J</sup>	<b>2,534</b>	<b>1,300</b>	<b>4,400</b>	<b>8,500</b>	<b>3,100</b>	<b>2,640</b>	<b>11,100</b>	<b>1,145</b>	<b>4,790</b>	521	<b>1,110</b>	<b>5,500</b>	<b>9,300</b>	<b>3,300</b>	<b>2,050</b>	<b>2,160</b>	<b>1,992</b>	1.89 J

Notes:

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NR 140 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

Exceedances: **BOLD** = concentration exceeds Chapter NR 140 PAL      BOX = concentration exceeds Chapter NR 140 ES

TABLE 2  
 GROUNDWATER ANALYTICAL QUALITY RESULTS  
 VOLATILE ORGANIC COMPOUNDS  
 ADAMS FRIENDSHIP SCHOOL DISTRICT  
 CASTLE ROCK ELEMENTARY SCHOOL  
 Project Reference #5972

Monitoring Well Identification:				MW-13				MW-14				MW-15				VMP-1			VMP-3			GW-SEEP						SEEP-1	SEEP-2	TW-1	TW-2						
Parameter	Unit	NR 140		Collection Date																																	
		ES	PAL	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	01/29/04	05/06/04	09/23/04	07/27/06	09/08/08	06/20/96	01/14/97	07/06/00	06/20/96	01/14/97	07/06/00	07/18/96	01/14/97	08/07/97	07/06/00	01/29/04	05/06/04	09/23/04	09/08/08	09/08/08	07/25/06	07/25/06		
Gasoline Range Organics	µg/L	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,470	NA	NA	<50	<50	NA	NA	<2.0	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	µg/L	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Benzene	µg/L	5.0	0.5	<0.2	<0.5	<0.5	<0.31	<0.24	<b>6.8</b>	<b>12.6</b>	<b>113</b>	<77.5	<12	<0.2	<0.5	<0.5	<0.31	<0.24	<b>286</b>	NA	<b>4.3</b>	<0.2	<0.16	<b>12</b>	<b>100</b>	<b>2.9</b>	<b>1.1</b>	<b>5.5</b>	<0.2	<0.5	<0.5	<0.24	<0.24	<0.31	<3.1		
1,2-Dichloroethane	µg/L	5.0	0.5	NA	NA	NA	<0.4	<0.41	NA	NA	NA	<200	<20.5	NA	NA	NA	<0.4	<0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.41	<0.41	NA	NA			
Ethylbenzene	µg/L	700	140	<0.5	<5.0	<5.0	<0.5	<0.35	<b>610</b>	<b>269</b>	<b>1,870</b>	<b>461</b>	<b>1,740</b>	<0.5	<5.0	<5.0	<0.5	<0.35	<10	NA	95	0.5	<0.36	<b>230</b>	4.2	NA	<0.35	6.5	<0.5	5.4	<5.0	1.62	1.12	<0.5	<b>292</b>		
Methyl Tert Butyl Ether	µg/L	60	12	<0.5	<0.511	<0.511	<0.3	<0.7	<2.0	<b>14.2</b>	<b>172</b>	<75	<35	<0.5	<0.511	<0.511	<0.3	<0.7	<10	NA	<b>23</b>	NA	NA	<b>22</b>	<1.5	<0.98	<0.29	0.87	<0.5	<0.511	0.735	<0.7	<0.7	<0.3	<3.0		
Naphthalene	µg/L	40	8.0	NA	NA	NA	<0.8	NA	NA	NA	NA	<200	NA	NA	NA	NA	<0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Toluene	µg/L	1,000	200	<0.2	<5.0	<5.0	<0.3	<0.39	<b>1,800</b>	<b>2,550</b>	<b>25,200</b>	<b>2,600</b>	<b>8,800</b>	<0.2	<5.0	<5.0	<0.3	<0.39	<b>521</b>	NA	<b>350</b>	0.4	<0.29	<b>1,600</b>	110	4.8	4.3	92	<0.2	<5.0	<5.0	<0.39	0.96 <sup>J</sup>	<0.3	113		
1,2,4-Trimethylbenzene	µg/L	**	**	<0.2	<5.0	<5.0	<0.4	<0.51	900	311	2,260	601	1,940	<0.2	<5.0	<5.0	<0.4	<0.51	41	NA	210	NA	NA	390	6.1	<1.2	<0.36	10	<0.2	<5.0	6.05	1.54 <sup>J</sup>	2.57	<0.4	415		
1,3,5-Trimethylbenzene	µg/L	**	**	<0.2	<5.0	<5.0	<0.31	<0.23	250	146	759	<77.5	600	<0.2	<5.0	<5.0	<0.31	<0.23	14.6	NA	63	NA	NA	120	<2.0	<1.2	<0.38	3.9	<0.2	<5.0	<5.0	0.51 <sup>J</sup>	0.55 <sup>J</sup>	<31	80.2		
Total Trimethylbenzenes	µg/L	480	96	<0.2	<5.0	<5.0	<0.4	<0.51	<b>1,150</b>	<b>457</b>	<b>3,019</b>	<b>601</b>	<b>2,540</b>	<0.2	<5.0	<5.0	<0.4	<0.51	55.6	NA	<b>273</b>	NA	NA	<b>510</b>	6.1	<1.2	<0.38	13.9	<0.2	<5.0	6.05	2.05	3.12	<31	<b>495.2</b>		
Xylenes	µg/L	10,000	1,000	<0.5	<5.0	<5.0	<0.62	<1.0	<b>3,600</b>	<b>1,820</b>	<b>11,700</b>	<b>2,016</b>	<b>9,470</b>	<0.5	<5.0	<5.0	<0.62	<1.0	227.7	NA	660	<0.9	<0.94	<b>1,620</b>	43	3.2	3.0	62	<0.5	11.4	23.2	2.83 <sup>J</sup>	3.81 <sup>J</sup>	<0.62	887		

Notes:

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NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

Exceedances: BOLD = concentration exceeds Chapter NR 140 PAL BOX = concentration exceeds Chapter NR 140 ES